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NOTES ON NUT CULTURE

By C. I. LEWIS

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NOTES ON NUT CULTURE

BY C. I. LEWIS

Bulletin No. 92, The Walnut in Oregon, is out of print. In order to satisfy the many demands for information we are issuing this circular until such time as we can prepare a new bulletin on the subject.

In engaging in walnut growing it is well to remember that there are two distinct types, the soft shell type, such as Santa Barbara, which is grown largely in Southern California, and the hard shell, or so-called French type, which is grown in Northern California and Oregon. The soft shell types are not adapted to our climatic conditions; they bloom so early that they are generally caught by the frosts. The French strain on the other hand blooms late, generally along in May, after all danger of frost is over.

PRESENT CONDITION.—Fruiting walnut trees can be found in practically every town and city from Ashland to Portland. We have also several orchards of from ten to one hundred acres in extent that are coming into bearing. These trees show strong indication that walnut growing in the region west of the Cascades is bound to become a very important industry. At the present time there is very heavy planting. One nursery company in our State claims to have sold enough trees to plant three thousand acres this past season. Probably the total planting in Western Oregon will approximate five thousand acres. Many mistakes, however, are being made; such as planting worthless trees and the use of thin and poorly adapted soils. The walnut is comparatively easy to grow but nevertheless is exacting in its requirements.

PROPAGATION.—The subject of propagation has caused a great deal of discussion and difference of opinion. Personally I favor the grafted tree for the reason that where scions are carefully selected it means an orchard in which every tree will bear high grade, uniform nuts which should average several cents per pound better in price than seedling nuts. With carefully selected seedling nuts one should expect from 60 to 75 per cent of commercial product, but these would not, however, have the uniformity that would be found in grafted trees. The seedling gives more difference in size and form, in the age at which trees come into bearing, the blooming period, etc. It was formerly supposed that grafted trees did not make good growth but the results for the past two years contradict this statement. The principal reason grafted trees have not been used to any great extent is the high price and scarcity. The price should be no drawback where good trees can be procured. The English, American Black and California Black can be used as stock but I prefer the latter. It gives better uniformity, a larger percentage will grow and it is adapted to more soils than any other stock. There are very many worthless grafted trees advertised on the market. Unless it is known where the scions are obtained, that they came from worthy trees, they are quite apt to be worthless. My second choice of trees would be seedlings where the nuts were taken from

an isolated tree or from an orchard of a single variety. Nuts collected from mixed orchards, grocery stores, etc., are worthless.

Nuts can be stratified in boxes or planted in the soil from February to April, but the method that is used in sprouting California Black gives very good success. Choose the south side of a building, lay down a few boards and cover with an inch or two of sand, then spread on the nuts and cover them about an inch deep. Have some rough boards handy with which you can cover the nuts in case of heavy rains to prevent washing. This is generally done in February and the nuts will sprout then in a few weeks and can be transplanted in nursery rows. I prefer to plant in nursery rows rather than planting in the field as better care is given and more intensive culture can be practiced.

GRAFTING.—It has been a difficult task to graft walnut trees; however, there are several men who have had more or less success. Mr. George Payne of Campbell, California, seems to be a very successful grafter. Many of the large black walnut trees scattered over the State can be top-worked by a modified form of cleft grafting. The average man should not attempt to work over nursery trees but should secure some expert.

SITE.—The walnut prefers a good, deep, rich, moist loam, the deeper the better. The so-called "white lands" should be avoided, also those soils underlaid with hardpan, loose gravel or cement gravel. The red hill lands of Western Oregon, wherever good depth is found, are proving quite satisfactory. We have not as yet determined the limit of elevation. In France nuts grow as high as 2500 feet.

The section of the Northwest which extends west of the Cascade Mountains will probably be the great walnut country in the future. The greatest activity is in the Wilammette Valley. Yamhill county has the largest acreage.

Good walnut land can be procured for from $25 to $100 per acre. When set out with selected trees brought to maturity a walnut orchard should be worth $1000 per acre.

PLANTING.—Grafted trees should be planted 65 feet apart, seedlings about 50 feet. Plant the trees as is customary with apples. In transplanting one is obliged to cut the tap root. It is desirable to leave 20 to 24 inches of root, cut off with a sharp knife so as not to leave a ragged wound. Formerly it was thought fatal to head in a young walnut tree but now some growers practice cutting back to two or three buds in planting and report splendid success. The trees never make much growth the first year but the second or third the growth is rapid, often reaching six to eleven feet in a single season.

PRUNING.—For the first three years terminal growth should be encouraged by keeping the laterals off. The third year the branches can be allowed to form from six to eight feet from the ground. It is very important to stake young trees, otherwise they are apt to break from heavy winds. Old trees will need little pruning except to remove dead wood and branches, in a few cases, where they are growing too thickly.

CULTIVATION.—Some people have thought that all that is necessary to grow walnuts is to set the trees but these people are always doomed to disappointment. In order to get a good thrifty growth it is necessary to practice just as intensive cultivation as is customary with our fruit trees.

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HARVESTING.—The nuts are harvested by shaking the trees or raking down with bamboo poles. They should be picked up immediately and the hulls removed and should then be dried in the sun or in prune driers. They are generally sacked for market but a few growers are using carton packages with success.

VARIETIES.—The two best varieties are the Franquette and Mayette. These are nuts of the higher grade, are vigorous, healthy trees and prolific bearers. There are several new nuts coming on the market that have a great deal of promise, one of the most promising being the Payne; the Concord is also attracting considerable attention.

THE MARKET.—The production of walnuts in the United States has not materially increased while the demand and consumption of nuts has greatly increased. It has been demonstrated in this State that walnuts can be grown for 10c per pound at a good profit and the present price ranges from 14c to 20c. A man who selects his trees, uses good soil and cultivates his orchard should receive good interest on a valuation of $1,000.00 an acre.

ALMONDS.

The almond is very exacting in its requirements, especially in regard to frosts. It is the earliest fruit tree to bloom consequently is often nipped by the early spring frosts. There are few localities in our State adapted to this nut. The southern counties, Jackson and Josephine, have considerable land suitable to this nut and there is also some in the frost-free sections along the Columbia. The soil requirements are much the same as for the peach but the almond is a much deeper rooted tree. While reported to stand a great deal of hardship it always responds to good care and cultivation. The general care is much the same as for the peach except that pruning consists of thinning out the excessive growth rather than heading in as practiced with peach trees. We generally propagate by budding on seedling Almond roots. Occasionally the peach is used but under no condition should they be budded on apricots. Three of the best varieties are the I. X. L., Ne Plus Ultra and Texas Prolific.

FILBERTS.

Comparatively few plantings have been made of the filbert. These are to be found in Portland and vicinity and are very promising. The Experiment Station has a small orchard of 14 varieties that are making a very satisfactory growth. The present indications are that the deep, moist loams of Western Oregon will grow the filbert to perfection. They should be encouraged to grow to the tree form rather than the bush, and should receive as good cultivation as is customary with our tree fruits. The best varieties are the French and Spanish strains, among them are the Barceloma and DuChilly.